

Amendments to the Claims:

1. (Currently Amended) A method comprising:

providing a distributed switch fabric network having a first node and a second node coupled to exchange a plurality of packets over a channel, wherein the plurality of packets are divided into a plurality of priority levels of packets;

detecting a congestion condition of one of the plurality of priority levels of packets in the second node;

reporting the congestion condition of the one of the plurality of priority levels of packets to the first node;

the first node suspending transmission of the one of the plurality of priority levels of packets over the channel to the second node;

detecting a clear condition of the one of the plurality of priority levels of packets in the second node;

reporting the clear condition of the one of the plurality of priority levels of packets to the first node; ~~and~~

resuming transmission of the one of the plurality of priority levels of packets from the first node to the second node;

providing each of the plurality of priority levels of packets with a transmit buffer;

the one of the plurality of priority levels of packets accumulating in the transmit buffer corresponding to the one of the plurality of priority levels of packets;

if the transmit buffer corresponding to the one of the plurality of priority levels of packets reaches a transmit threshold value, a traffic manager of the first node modifying transmission of the one of the plurality of priority levels of packets to the transmit buffer;
and

if resuming transmission occurs prior to the transmit buffer reaching the transmit threshold value, the first node suspending transmission of the one of the plurality of priority levels of packets occurring transparently to the traffic manager of the first node.

2. (Cancelled)

3. (Currently Amended) The method of claim [[2]] 1, wherein the first node modifying transmission of the one of the plurality of priority levels of packets comprises suspending transmission of the one of the plurality of priority levels of packets over the channel to the transmit buffer.

4. (Currently Amended) The method of claim [[2]] 1, wherein modifying transmission of the one of the plurality of priority levels of packets comprises throttling transmission of the one of the plurality of priority levels of packets over the channel to the transmit buffer.

5. The method of claim 1, further comprising allowing the plurality of packets other than the one of the plurality of priority levels of packets to continue to the second node over the channel.

6. The method of claim 1, wherein first node comprises a first node transceiver port and the second node comprises a second node transceiver port, and wherein detecting the congestion condition comprises the second node transceiver port detecting the congestion condition.

7. The method of claim 6, wherein reporting the congestion condition comprises the second node transceiver port reporting the congestion condition to the first node transceiver port.

8. The method of claim 6, wherein detecting the clear condition comprises the second node transceiver port detecting the clear condition.

9. The method of claim 6, wherein reporting the clear condition comprises the second node transceiver port reporting the clear condition to the first node transceiver port.

10-11. (Cancelled)

12. (Original) A method comprising:

providing a distributed switch fabric network having a first node having a first node transceiver port and a second node having a second node transceiver port;

link level flow control operating between the first node transceiver port and the second node transceiver port to in response to a congestion condition in the second node transceiver port, wherein the link level flow control suspends transmission of one of a plurality of priority levels of packets on a channel from the first node transceiver port to the second node transceiver port;

the one of the plurality of priority levels of packets accumulating in one of a plurality of transmit buffers of the first node transceiver port, wherein the one of the plurality of transmit buffers corresponds to the one of the plurality of priority levels of packets;

per-flow flow control operating to modify transmission of the one of the plurality of priority levels of packets to the one of the plurality of transmit buffers if the one of the plurality of transmit buffers reaches a transmit threshold value; and

link level flow control operating transparently to a traffic manager of the first node if the congestion condition occurs and the one of the plurality of transmit buffers fails to reach the transmit threshold value.

13. (Original) The method of claim 12, wherein the first node transceiver port is comprised of a first node receiver port and a first node transmitter port, wherein the second node transceiver port is comprised of a second node receiver port and a second node transmitter port, and wherein the link level flow control operating comprises:

the second node receiver port detecting the congestion condition;

the second node receiver port reporting the congestion condition to the second node transmitter port;

the second node transmitter port reporting the congestion condition to the first node receiver port;

the first node receiver port transmitting a priority level stop signal to the first node transmitter port, wherein the priority level stop signal corresponds to the one of the plurality of priority levels of packets; and

the first node transmitter port suspending transmission of the one of the plurality of priority levels of packets to the second node receiver port.

14. (Original) The method of claim 12, wherein the first node transceiver port is comprised of a first node receiver port and a first node transmitter port, wherein the second node transceiver port is comprised of a second node receiver port and a second node transmitter port, and wherein the link level flow control operating comprises:

the second node receiver port detecting a clear condition;

the second node receiver port reporting the clear condition to the second node transmitter port;

the second node transmitter port reporting the clear condition to the first node receiver port;

the first node receiver port transmitting a priority level start signal to the first node transmitter port, wherein the priority level start signal corresponds to the one of the plurality of priority levels of packets; and

the first node transmitter port resuming transmission of the one of the plurality of priority levels of packets to the second node receiver port.

15. (Original) The method of claim 12, wherein the per-flow flow control operating comprises:

a flow control generator detecting the one of the plurality of transmit buffers reaching the transmit threshold value and transmitting a modify flow control packet to the traffic manager, wherein the modify flow control packet operates to modify the flow of the one of the plurality of priority levels of packets to the one of the plurality of transmit buffers; and

the flow control generator detecting the one of the plurality of transmit buffers dropping below the transmit threshold value and transmitting a resume transmission packet to the traffic manager, wherein the resume transmission packet operates to resume

transmission of the one of the plurality of priority levels of packets to the one of the plurality of transmit buffers.

16. (Original) The method of claim 15, further comprising the flow control generator scheduling transmission of a plurality of priority levels of packets, the modify flow control packet and the resume transmission packet to the traffic manager.

17. (Original) The method of claim 16, wherein the flow control generator giving priority to the modify flow control packet and the resume transmission packet over the plurality of priority levels of packets.

18. (Original) The method of claim 12, wherein operating to modify transmission of the one of the plurality of priority levels of packets comprises suspending transmission of the one of the plurality of priority levels of packets over the channel to the one of the plurality of transmit buffers.

19. (Original) The method of claim 12, wherein operating to modify transmission of the one of the plurality of priority levels of packets comprises throttling transmission of the one of the plurality of priority levels of packets over the channel to the one of the plurality of transmit buffers.

20-31. (Cancelled)